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April 18, 2003

Mary L. Cottrell, Secretary
Department of Telecommunications and Energy
One South Station
Boston, MA 02110

Re: Boston Edison Company d/b/a NSTAR Electric, D.T.E. 02-80A, Responses to Information Requests

Dear Secretary Cottrell:

Enclosed for filing in the above-referenced matter is the response of Boston Edison Company d/b/a NSTAR Electric to the Information Requests set forth on the accompanying list.

Thank you for your attention to this matter.

Sincerely,

Robert N. Werlin

Robert N. Weli/fyl

**Enclosures** 

cc: William Stevens, Hearing Officer

Service List

### Responses to Information Requests

Information Response DTE-4-5

April 18, 2003

Information Request: DTE-4-5

April 18, 2003

Person Responsible: Joseph F. Lanzel

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#### **Information Request DTE-4-5**

Refer to Exhibit BEC-JFL-1, at 5 (Supp) which states: "Note: 2002 Col. B per Page 2 adj for BETG Carrying Charge Adjustment." Please describe with supporting schedules how this adjustment was performed and show the incremental impacts of this adjustment on all affected schedules.

#### Response

During the process of researching the answer to this question, an error was discovered in the formula contained in the spreadsheet that calculates Cumulative Bonus Allowed (Exhibit BEC-JFL-1 (Supp), Column D). The corrected exhibit is shown as Attachment DTE-4-5(a)<sup>2</sup>. Changes from BEC-JFL-1 (Supp) are shaded. The impact on the Nominal Annual Incremental Bonus Required (Column E) is shown in Table 1:

Table 1 - Correction of Nominal Incremental Bonus Required

Year	As Filed	Corrected	Difference
2000	\$0.000 million	\$0.000 million	\$0.000 million
2001	\$52.467	\$52.269	\$(0.198)
2002	\$14.596	\$14.427	\$(0.169)
2003(F)	\$10.107	\$10.140	\$0.033
2004(F)	\$ 9.434	\$ 9.643	\$0.209
2005(F)	\$ 4.987	\$ 5.073	\$0.086
2006(F)	\$ 4.537	\$ 4.423	\$(0.114)
2007(F)	\$ 5.201	\$ 5.179	\$(0.022)
2008(F)	\$ 3.753	\$ 3.820	\$0.067
2009(F)	\$ 2.734	\$ 2.767	\$0.033

Note: Amounts for 2003 - 2009 are forecasted.

To answer the question, Attachment DTE-4-5(b) shows the corrected exhibit without excluding the BETG Carrying Charge Adjustment from mitigation

The formula in Column D was not correctly interpolating for the third significant digit of the Cumulative Average Rolling Transition Charge, when performing the table lookup for the Cumulative Bonus Allowed. The error in any given year was between \$0 and approximately \$300,000, which, because of the cumulative nature of the calculation would reverse in the subsequent year and be introduced again.

The prior overcollection of \$36.187M on page 1 has been decreased by the \$0.198 reduction in incentive mitigation shown for 2001 in Table 1.

Boston Edison Company
Department of Telecommunications and Energy

D.T.E. 02-80A

Information Request: **DTE-4-5** 

April 18, 2003

Person Responsible: Joseph F. Lanzel

Page 2 of 2

incentive calculations. Changes from Attachment DTE-4-5(a) are shaded. The attachment shows that the impact of not excluding this adjustment results in a lower 2002 Base Transition Charge in Col. B (1.566 versus 1.579) for the purpose of determining the Nominal Annual Incremental Bonus Required in Col. E. The lower Base Transition Charge would have the impact of increasing the Nominal Annual Incremental Bonus Required by \$0.130 million. Table 2 shows this impact and the impact forecasted in subsequent years.

<u>Table 2 – Impact of BETG Adjustment on Nominal Incremental Bonus</u> Required

Per Attachment	Per Attachment	
DTE-4-5(a)	DTE-4-5(b)	Difference
\$14.427 million	\$14.557 million	\$0.130 million
\$10.140	\$10.129	\$(0.011)
\$ 9.643	\$ 9.624	\$(0.019)
\$ 5.073	\$ 5.064	\$(0.009)
\$ 4.423	\$ 4.414	\$(0.009)
\$ 5.179	\$ 5.115	\$(0.064)
\$ 3.820	\$ 3.815	\$(0.005)
\$ 2.767	\$ 2.763	\$(0.004)
	<b>DTE-4-5(a)</b> \$14.427 million \$10.140 \$ 9.643 \$ 5.073 \$ 4.423 \$ 5.179 \$ 3.820	DTE-4-5(a)       DTE-4-5(b)         \$14.427 million       \$14.557 million         \$10.140       \$10.129         \$ 9.643       \$ 9.624         \$ 5.073       \$ 5.064         \$ 4.423       \$ 4.414         \$ 5.179       \$ 5.115         \$ 3.820       \$ 3.815

Note: Amounts for 2003 – 2009 are forecasted.

Transition Charge Calculation \$ in Millions **Boston Edison Company** 

(Over) Under Collection	Col. K	\$ (36,385) \$ (41,439)	4,107	1	,	,	•		ı	r	,	ı	ı	,	ı	,
Expenses	Col. J	(3.959) \$ 186.815	274.015	260.288	316.292	314.986	277,051	265.621	262.109	210.610	172.044	102.808	101.491	60.206	68.471	59.280
Interest on Deferral	Col. I	\$ (3.959)	(4.509)	0.447	1	,	,	,	•		•	ŧ	1	1	1	•
Prior Year Deferral	Col. H	\$ (36.385)	(41,439)	4.107	1	•	ı	•	•	ı	1	ı		1	1	1
Mitigation	Col. G	\$ 14.427	10.140	9,643	5.073	4,423	5.179	3.820	2.767		1	Ī	į	Ī	1	1
Total Variable Component	Col. F	106.594	209.115	149.373	219.347	223.341	189.533	184.045	186.509	195.436	172.044	102.808	101.491	60.206	68.471	59.280
Fixed	Col. E	106.138 \$	100.707	96.719	91.872	87.222	82.339	77.756	72.833	15.174	B	•	•	t	1	1
O		<del>⇔</del>					1973 1973		, ali	Q.	ğ.	18.				
Revenues for Delivered GWH	Col. D	228.254 🐇 \$	269.908	260.288	316.292	314.986	277.051	265,621	262,109	210.610	172.044	102.808	101.491	60.206	68.471	59.280
Transition Charge	Col. C	1.566	1.840	1.740	2.072	2.023	1.745	1.640	1.587	1.250	1.001	0.586	0.568	0.330	0.368	0.312
GWH Delivered	Col. B	14,579	14,669	14,962	15,262	15,567	15,878	16,196	16,520	16,850	17,187	17,531	17,881	18,239	18,604	18,976
Year	Col. A	2001 2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016

2002 per Page 2; Forecast 2003 sales; years beyond 2003 reflect 2% growth Col B

2002 per Page 2; 2003 reflects actual tariff in effect; 2004 and later: Col J / Col B ပ လ

2002 per Page 2; 2003 Col B \* Col C; future years equal to Col J Col D

Exh BEC-JFL-1 (Supp), Pg 3, Col E ColE

Col F

Exh BEC-JFL-1 (Supp), Pg 4, Col I Exh BEC-JFL-1 (Supp), Pg 5, Col E Col G

Col. K prior year ColH

Col. H times 10.88% <u>|</u> | 00

Sum Col E thru Col I Col Future years equal Col D - Col J

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# Boston Edison Company Actual 2002 Transition Revenues \$ in Millions

Description	GWH	A/C #	Per Book \$	Total
2002 Transition Billed Revenues:				
Residential Transition	4,041.023	440 160	\$ 62.927	
Industrial Transition	1,399.261	442 430	22.139	
Commercial Transition (includes WR rate and Special Contracts)	ontracts) 9,110.291	442440/500	143.580	
Street Light Transition	146.810	444 060	2.316	
Total Billed Revenues	14,697.385			\$ 230.963
2002 Transition Unbilled Revenues:			Value	
Less: Residential Transition Unbilled @ 12/31/01	(149.749)			
Plus: Residential Transition Unbilled @ 12/31/02	119,482	440 162	\$ (0.299)	
ess: Industrial Transition Unbilled @ 12/31/01	(81.628)		•	
Plus: Industrial Transition Unbilled @ 12/31/02	65.129	442 435	(0.404)	
Less: Commercial Transition Unbilled @ 12/31/01	(355.873)		•	
Plus: Commercial Transition Unbilled @ 12/31/02	283.945	442 505	(2.006)	
Total Unbilled Revenues	(118.694)			\$ (2.709)
Total 2002 Transition Revenues	14,578.691	1.566		\$ 228.254

Boston Edison Company
Summary of Transition Charge - Fixed Component
\$ in Millions

	Total	Col. E	(Col. C + Col. D)	106.138	100.707	96.719	91.872	87.222	82.339	77.756	72.833	15.174
	Expense						23.412					
	Amort.	Col. C		69.206	68.188	68.712	68.460	68.542	68.396	68.608	68.501	14.159
Securitization	Principal	Col. B		493.566	425.378	356.666	288.206	219.664	151.268	82.660	14.159	•
	Year	Col. A		2002	2003	2004	2005	2006	2007	2008	2009	2010

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Boston Edison Company
Summary of Transition Charge - Variable Component
\$ in Millions

Actual Total	variable Component	Col. M	106.594	209.115	149.373	219.347	223.341	189.533	184.045	186.509	195.436	172.044	102.808	101.491	60.206	68.471	59.280			
Reversal of Prior Year Rate	Design Adjustment	Col. L		0.539	(4.390)															
Rate	Design Adjustment	Col. K	(0.539)	4.390															OTE 00-82	<b>JTE</b> 00-82
	Other	Col. J	1	ı	•	•	•	•	•	1	•	•		•	•	•	•		nanged from I	nanged from I
Revenue Credits & Damages, Costs,	or net Recoveries	Col. I	26.625	31.653	44.796	43.114	44.370	4.680	0.780	0.780	0.780	0.780	0.390	1	ı		•		ture years unch	2002 BEC-RAP-1 (Supp), p.4, line 16; 2003 BEC-RAP-2 (Supp), p.4, line 16; future years unchanged from DTE 00-82
	or Property Taxes	Col. H	•	•	,	t	•	ı	•	,	•	•	1	•	1	ı	•		.5, line 15; fur	.4, line 16; fu
Actual Purchased Power	Buyouts	Col. G	•	ı	•	•	,	•	1	1	1	ı	1	,	i	1	t		-2 (Supp), p	7-2 (Supp), p
Actual Transmission in Support of Remote	Units	Col. F	1	•	ı	ı	1	,	•	,	,	•	1	•	ı	ı			003 BEC-RAF	003 BEC-RAF
Net	Obligation	Col. E	80.508	172.533	108.967	176.233	178.971	184.853	183.265	185.729	194.656	171.264	102.418	101.491	60.206	68.471	59.280		p.5, line 15; 2	p.4, line 16; 2
Actual Power Contracts	Value	Col. D	329.421	199.374	272.741	124.055	125.951	120.926	123.923	127.252	131.899	101.833	62.29	69.353	48.417	49.603	38.574		(P-1 (Supp),	N-1 (Supp),
Actual Power	Obligations	Col. C	409.929	371.907	381.708	300.288	304.922	305.779	307.188	312.981	326.555	273.098	169.987	170.844	108.623	118.075	97.854	Description	2002 BEC-RA	2002 BEC-RA
Actual Nuclear	Decomm.	Col. B	•	•	ı	,	ı	ì	Ī	i	ı	1	,	1	ì	1				
	Year	Col. A	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Note	Col. C	<u>о</u> і

Col C - Col D

No Current Buyouts
Per BEC-JFL-2 (Supp)
DTE 00-82 Settlement Rate Design Adjustment
Reversal of Prior Year Rate Design Adjustment (- Prior Year Col. K)
Col B + Col E + Col F + Col G + Col H + Col J + Col J + Col L Col. R Col. K Col. K Col. L

Boston Edison Company Summary of Transition Charge - Incentive \$ in Millions

		Impact	uo	Transition	Charge	Col. F
	Nominal	Annual	Incremental	Bonus	Required	Col. E
			Cumulative	Bonus	Allowed	Col. D
Cumulative	Rolling	Average	Transition	Charge	(cents/kWh)	Col. C
		Base	Transition	Charge	(cents/kWh)	Col. B
					Year	Col. A

	0.36	0.10	0.07	90.0	0.03	0.03	0.03	0.02	0.02
	52,269	14,427	10.140	9.643	5.073	4.423	5.179	3.820	2.767
	40,462	50.937	57.844	64,004	67.044	69.530	72,261	74,150	75.433
3.08 2.86 2.51	2.21	2.09	2.05	2.00	2.01	2.01	1.99	1.95	1.92
3.085 2.626 1.818	1,331	1.579	1.840	1.741	2.072	2.023	1.745	1.640	1.587
1998 1999 2000	2001	2002	2003	2004	2005	2006	2007	2008	2009

Legend:	
Col. B	2002 see Note below; 2003 and later per Page 1 Col. C
Sol. Co	Cumulative average of current & prior years shown in Col. E
Col. D	For any given year based upon cumulative average
	transition charge, interpolate bonus from the table below
Col. E	(Col. D current year - Col. D prior year) * (1 + WACC AT) ^ n
	where n = number of years since 1998 +1, and WACC AT it
	the weighted cost of capital after-tax equal tr 6.61%
Col. FI	Col. E / Current year GWH sales, Page 1 Col. E

Note: 2002 Col. B per Page 2 adj for BETG Carrying Charge Adjustmer

Assumptions: 1998 \$ NPV Cumulative Bonus/(Penalty

	2009	86	93	88	83	78	74	64	54	44	34	22	15	Ŋ	0
	2008	\$ 26	92	88	83	78	73	63	54	44	8	25	15	S	0
	2007		91	98	81	77	72	62	53	43	34	24	15	5	0
	<u>2006</u>	83	89	84	79	75	70	61	51	42	33	24	14	2	0
	2005	\$ 06	86	81	77	72	89	29	20	41	32	23	14	S	0
	20	<del>69</del>													
	2004	82	8	11	73	99	64	26	47	39	30	55	13	4	0
	2003	80	92	72	89	64	09	25	44	36	78	50	12	4	0
	2002	72 \$	89	65	61	58	54	47	40	33	25	18	7	4	0
	10	63	09	22	53	20	47	14	35	28	22	16	10	ო	0
	20	52 \$	49	47	44	41	39	34	29	23	18	13	œ	ო	0
	2000	38 \$	36	34	32	31	29	25	21	17	13	10	9	2	0
ess Charge	1999	↔								_	**	1.5			_
Rolling Average Access Charc	1998	\$ 21	20	19	18	17	16	4	12	10	80	2	ന	_	0
Rolling A		1.00	1.20	1.40	1.60	1.80	2.00	2.20	2.40	2.60	2.80	3.00	3.20	3.40	3.50

2002 per Page 2; Forecast 2003 sales; years beyond 2003 reflect 2% growth Col B

2002 per Page 2; 2003 reflects actual tariff in effect; 2004 and later: Col J / Col B 000

2002 per Page 2; 2003 Col B \* Col C; future years equal to Col J Col D

Exh BEC-JFL-1 (Supp), Pg 3, Col E ColE

Exh BEC-JFL-1 (Supp), Pg 4, Col I ColF

Exh BEC-JFL-1 (Supp), Pg 5, Col E ColG

Col. K prior year ColH

Col. H times 10.88% -응

Sum Col E thru Col I  Future years equal Col D - Col J

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## Boston Edison Company Actual 2002 Transition Revenues \$ in Millions

Total	<b>≻</b> 6 € €	\$ 230.963	(6 <del>(+</del> (5)	\$ (2.709)
Per Book \$	\$ 62.927 22.139 143.580 2.316	Value	\$ (0.299) (0.404)	
A/C#	440 160 442 430 442440/500 444 060		440 162 442 435 442 505	1.566
GWH	4,041.023 1,399.261 9,110.291 146.810	14,697.385	(149.749) 119.482 (81.628) 65.129 (355.873) 283.945	(118.694)
Description	2002 Transition Billed Revenues: Residential Transition Industrial Transition Commercial Transition (includes WR rate and Special Contracts) Street Light Transition	Total Billed Revenues 2002 Transition Unbilled Revenues:	Less: Residential Transition Unbilled @ 12/31/01 Plus: Residential Transition Unbilled @ 12/31/02 Less: Industrial Transition Unbilled @ 12/31/01 Plus: Industrial Transition Unbilled @ 12/31/02 Less: Commercial Transition Unbilled @ 12/31/01 Plus: Commercial Transition Unbilled @ 12/31/02	Total Unbilled Revenues Total 2002 Transition Revenues
Line	← 0 m 4 m	9 /	8 6 7 7 7 6	4 7

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Boston Edison Company
Summary of Transition Charge - Fixed Component
\$ in Millions

Interest &		Col. D Col. E	(Col. C + Col. D)				23.412 91.872					
		Col. C		69.206	68.188	68.712	68.460	68.542	68.396	68.608	68.501	14.159
Securitization	Principal	Col. B		493.566	425.378	326.666	288.206	219.664	151.268	82.660	14.159	1
	Year	Col. A		2002	2003	2004	2005	2006	2007	2008	2009	2010

Boston Edison Company
Summary of Transition Charge - Variable Component
\$ in Millions

Actual Total Variable Component	Col. M	106.594	209.115	149.373	219.347	223.341	189.533	184.045	186.509	195.436	172.044	102.808	101.491	60.206	68.471	59.280									
Reversal of Prior Year Rate Design Adiustment	Col. L			(4.390)																					
Rate Design Adiustment	Co. K	(0.539)	4.390															<b>JTE 00-82</b>	<b>DTE</b> 00-82						
Other	Col. J	1	•	ı	1	•	,	•	,	•	1	1	•	•	•	•		hanged from I	hanged from I						
Revenue Credits & Damages, Costs, or net	Col. –	26.625	31.653	44.796	43.114	44.370	4.680	0.780	0.780	0.780	0.780	0.390	ı		•	•		2002 BEC-RAP-1 (Supp), p.5, line 15, 2003 BEC-RAP-2 (Supp), p.5, line 15; future years unchanged from DTE 00-82	ture years unc						
Actual Payments in Lieu of Property	Col. H		,	ı	1	Ì	ı	•	1	ı	•	ı	ı	1	•			.5, line 15; fur	.4, line 16; fur					<b>⊘</b> =	, , ,
Actual Purchased Power Contract Buyouts	Col. G	•	ı	•		•	•	•	1	ı	•	•	•			•		2-2 (Supp), p	2-2 (Supp), p					or Year Col. F	ל + ב = ב + ב
Actual Transmission in Support of Remote Generating	Col. F	,		,		1	,	•	1	1	•	,	1		•	•		2003 BEC-RAF	2003 BEC-RAF				ustment	Reversal of Prior Year Rate Design Adjustment (- Prior Year Col. K)	7 5 1 5 1 5 1 5 1
Net Power Obligation	Col. E	80.508	172.533	108.967	176.233	178.971	184.853	183.265	185.729	194.656	171.264	102.418	101.491	60.206	68.471	59.280		p.5, line 15; 2	p.4, line 16; 2				te Design Adjı	te Design Adju	- E らく + り ら
Actual Power Contracts Market	0.  -  -	329.421	199.374	272.741	124.055	125.951	120.926	123.923	127.252	131.899	101.833	62.29	69.353	48.417	49.603	38.574		.P-1 (Supp),	(P-1 (Supp),		nyonts	.2 (Supp)	ettlement Ra	rior Year Rai	) + L 5) +
Actual Power Total Oblications	Col. C	409.929	371.907	381.708	300.288	304.922	305.779	307.188	312.981	326.555	273.098	169.987	170.844	108.623	118.075	97.854	Description	2002 BEC-RA	2002 BEC-RA	Col C - Col D	No Current Bu	Per BEC-JFL.	DTE 00-82 Settlement Rate Design Adjustment	Reversal of Pl	1 50 to 100
Actual Nuclear Decomm	Col. B	•	,		•	•	•	1	1	,	,	•	•	1	•	•									
Year	Col. A	2002	2003	2004	2002	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Note	Col. C	Col. D	Col. E	Col. G	Col. I	Col. K	Col. L	≥

Summary of Transition Charge - Incentive **Boston Edison Company** 

\$ in Millions

Transition Charge Col. F

Incremental

Cumulative

Transition Average Rolling

> Transition Charge

Bonus

Required

Allowed Col. D

Charge (cents/kWh)

(cents/kWh)

လ<u>်</u>

Col. B

Col. A

Col. E

Impact 5

Annual Bonus

Nominal

Cumulative

Note: 2002 Col. B per Page 2 adj for BETG Carrying Charge Adjustmer the weighted cost of capital after-tax equal tr Col. E / Current year GWH sales, Page 1 Col. E 00. F

6.61%

(Col. D current year - Col. D prior year) \* (1 + WACC AT) ^ n where n = number of years since 1998 +1, and WACC AT it

Col. E

5.064 4.414 5.115 3.815 2.763

57.932 57.931 64.079 67.114 69.585 72.291 74.178

3.08 2.28 2.25 2.00 2.00 2.00 2.00 2.00 1.98 1.98

3.085 2.626 1.818 1.331 1.566 1.742 2.072 2.072 2.023 1.744 1.744 1.745

2000 2001 2002 2003 2004 2005 2005 2007 2008 2009

transition charge, interpolate bonus from the table below

For any given year based upon cumulative average

Cumulative average of current & prior years shown in Col. I

CO CO ID

0.36 0.10 0.07 0.06 0.03 0.03 0.02

52.269 14.557 10.129 9.624

40.462

2002 see Note below; 2003 and later per Page 1 Col. C

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Assumptions: 1998 \$ NPV Cumulative Bonus/(Penalty

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15	ιΩ	0
14	ß	0
4	Ŋ	0
13	4	0
12	4	0
7	4	0
9	က	0
80	က	0
9	7	0
က	<del>-</del>	0
3.20	3.40	3.50
	3 6 8 10 11 12 13 14	3.20 3 6 8 10 11 12 13 14 1 3.40 1 2 3 3 4 4 4 4 5